Case series

Patients with single level traumatic subaxial cervical spine dislocation (n = 39) treated by this modified anterior technique were studied. The technique involved standard Smith-Robinson approach, discectomy beyond PLL, use of inter-laminar distracter to distract while Caspar pins were used as “joysticks” (either flexion-extension or lateral rotation moments are provided), to reduce the sub-luxed facets. Among 51 patients with cervical type C injury treated during the study period, 4 patients who had spontaneous reduction and 8 treated by planned global fusion were excluded.

39 patients of mean age 49.9 years were studied. The levels of injury included (C3-4 = 2, C4-5 = 5, C5-6 = 20, C6-7 = 12). 18 were bi-facetal and 21 were uni-facetal dislocation. One facet was fractured in 17 and both in 5 patients. 30% (n = 13) had a concomitant disc prolapse. The neurological status was as follows: 9 ASIA A, 9 ASIA C, 13 ASIA D and 8 ASIA E. All the patients were successfully reduced by this technique and fixed with anterior locking cervical locking plates. No supplemental posterior surgery was performed. 22 patients with incomplete deficit showed recovery. The mean follow-up was 14.3 months and there was no implant failure except one patient who had partial loss of the reduction.

Patients with traumatic sub-axial cervical dislocation (AO type C injuries) can be safely and effectively reduced by this technique. Other advantages include minimal blood loss, less risks of infection, shorted fusion zone, good fusion rate and neurological recovery [1].

1)
Kanna RM, Shetty AP, Rajasekaran S. Modified anterior-only reduction and fixation for traumatic cervical facet dislocation (AO type C injuries). Eur Spine J. 2017 Dec 26. doi: 10.1007/s00586-017-5430-y. [Epub ahead of print] PubMed PMID: 29279998.